US Army Corps of Engineers

Public Notice

No. 03-07 **Issuing Office:** CELRB-TD-OT **Issue Date:** 8 JAN 2003 **Exp. Date:** 8 FEB 2003

REPLY TO ATTENTION OF:

Operations and Technical Support Section

OPERATION AND MAINTENANCE DREDGING AND DREDGED MATERIAL DISCHARGE

TOLEDO HARBOR (MAUMEE RIVER AND OUTER HARBOR)

LUCAS COUNTY, OHIO

This Public Notice has been prepared and distributed pursuant to Section 404 of the Clean Water Act (33 USC 1344) and 33 Code of Federal Regulation (CFR) 337.1, "Practice and Procedure: Discharge of Dredged Material into Waters of the U.S. or Ocean Waters; Operation and Maintenance; Final Rule" (53 Federal Register, page 14916, 26 April 1988). Its purpose is to advise all interested parties of the proposed project and to provide an opportunity to submit comments, or request a public hearing.

The U.S. Army Corps of Engineers (USACE), Buffalo District, anticipates the need to dredge and discharge material excavated from the Federal navigation channels of the Toledo Harbor project, in order to maintain sufficient depth for deep-draft commercial vessels. Included in the project are the Outer Harbor Channel (Lake Approach Channel) and Inner Harbor Channel (Maumee River Channel). The attached map (Figure 1) shows the authorized limits and depths of the Federally maintained channels. Up to one additional foot of material may be removed to insure the minimum depth.

The 2003 dredging operation in the Lake Approach Channel is tentatively scheduled to be performed during the period between 1 April and 30 November. The Maumee River Channel dredging operation is tentatively scheduled to be performed during the period between 15 June and 30 November. In 2001, the Ohio Department of Natural Resources (ODNR) raised concerns that maintenance dredging in the Lake

Approach Channel may have potential negative effects on walleye spawning activities in Maumee Bay and the Western Basin of Lake Erie. Consequently, they recommended that the dredging of this channel be restricted until after 15 June. In response to this concern, the USACE, Buffalo District is currently planning a study to evaluate the potential impacts of this dredging to walleye spawning activities in partnership with the Great Lakes Dredging Team, Windows Advisory Team (WAT).

Sediments will be removed from the channel bottom by a mechanical or hydraulic dredge and placed into hoppers aboard ship or scow for transport to the discharge sites. The method of excavation will be determined by the Contractor performing the maintenance dredging. In previous years, hopper, hydraulic and clamshell bucket dredges have been used to complete the required work.

An estimated total of 850,000 cubic yards of material will be dredged this year from the Federal navigation project. Approximately 300,000 cubic yards of material will be dredged from the Maumee River and Lake Approach Channels landward of Lake Mile (LM) 2, and 550,000 cubic yards of material will be dredged from the Lake Approach Channel lakeward of LM 2. The LM 2 demarcation is shown in Figure 1.

The material to be dredged consists primarily of silts and clays. Based on sediment data from 2000, the quality of the material was carefully assessed in accordance with joint U.S. Environmental Protection Agency (USEPA)/USACE protocols for the testing and evaluation of Great Lakes dredged material. Subject to some minor confirmatory sediment testing, this assessment has concluded that the material in the Lake Approach Channel lakeward of LM 2 meets Federal guidelines, and is therefore suitable for open-lake disposal. The confirmatory testing will focus on Polychlorinated Biphenyls (PCBs) concentrations in channel sediments between LM 2 and 5, and is scheduled for early 2003 (all preliminary indications are that the material meets Federal guidelines in this regard). Based on this assessment, it is proposed that material dredged from the Lake Approach Channel lakeward of LM 2 be discharged at the existing two-square mile open-lake disposal area in Lake Erie located three and one-half miles from the Toledo Harbor light at an azimuth of 033°00' (Figure 2). In response to local concerns, dredged material discharge will be restricted to the northeast half of this site. This site has been previously used by the USACE for the disposal of Toledo Harbor dredged material. All material in the Maumee River and Lake Approach Channel, landward of LM 2, has been determined to be unsuitable for open-lake disposal. Therefore, this material will be placed in the existing Confined Disposal Facility (CDF) No. 2 located near the mouth of Maumee River (refer to Figure 1).

A copy of this Public Notice has been provided to OEPA requesting Section 401 State Water Quality Certification for the discharge of dredged material at the existing open-lake area and CDF. The USACE, Buffalo District is requesting a Section 401 Certification to open-lake dispose of material dredged from the Lake Approach Channel, lakeward of LM 2, that is conditioned upon the favorable results of the confirmatory sediment testing for PCBs.

The environmental effects of the dredging operation are documented in the ***Final Environmental Impact Statement, Operation and Maintenance, Toledo Harbor, Ohio (1976); and Section 404(b)(1) Evaluation, Operation and Maintenance, Toledo Harbor, Ohio (1984); and Environmental Assessment and Section 404(b)(1) Evaluation, Operation and Maintenance, Toledo Harbor, Ohio (1989).*** These documents, and supplemental documentation, have been filed with the USEPA. Copies are available for examination at the Buffalo District office.

There are no registered historic properties or properties listed as being eligible for inclusion in the National Register of Historic Places that will be affected by this project. By this notice, the National Park Service is advised that currently unknown archaeological, scientific, prehistorical or historical data may be lost or destroyed by the work to be accomplished.

Based on the review of the available environmental data, we have determined that the proposed work will not affect any species proposed or designated by the U.S. Department of the Interior as threatened or endangered, nor will it affect the designated critical habitat of any such species. Therefore, unless additional information indicates otherwise, no further formal consultation pursuant to Section 7 of the Endangered Species Act Amendments of 1978 will be undertaken with the U.S. Fish and Wildlife Service.

This work will be undertaken in a manner consistent, to the maximum extent practicable, with the State Coastal Management Program.

The decision whether to perform dredging will be based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative factors thereof; among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and

fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

This activity is being coordinated with the following agencies, as well as other appropriate Federal, State and local agencies and organizations:

Ohio Department of Natural Resources
Ohio Environmental Protection Agency
Ohio Historic Preservation Office
U.S. Coast Guard
U.S. Department of the Interior, Fish and Wildlife Service
U.S. Environmental Protection Agency

Any interested parties and/or agencies desiring to express their views concerning this proposed discharge of dredged material may do so by filing their comments, in writing, no later than 30 days from the date of this notice. Any person who has an interest which may be affected by this discharge may request a public hearing. The request must be submitted in writing to the undersigned within 30 days of the date of this Public Notice. The request must clearly set forth the interest which may be affected, and the manner in which the interest may be affected, by this activity.

Questions and comments concerning this project should be directed to Mr. Scott W. Pickard of my Environmental Resources Management Team or Mr. Michael D. Asquith of my Navigation Team, who may be contacted by calling 716-879-4404 and 716-879-4352 (FAX 716-879-4357), respectively, or by writing to their attention at the following address:

District Engineer
Department of the Army
U.S. Army Engineer District, Buffalo
Operations and Technical Support Section
1776 Niagara Street
Buffalo, NY 14207-3199

This Public Notice is published in conformance with 33 CFR 337.1. All dredging and dredged material discharge will be performed in conformance with Sections 313 and 404 of the Clean Water Act (33 USC 1323 and 1344, respectively).

Jeffrey M. Hall
Lieutenant Colonel
District Engineer

Attachments

NOTICE TO THE POSTMASTER: It is requested that the above notice be conspicuously displayed for 30 days from the date of issuance.

FIGURE 1. Toledo Harbor, Lucas County, Ohio.

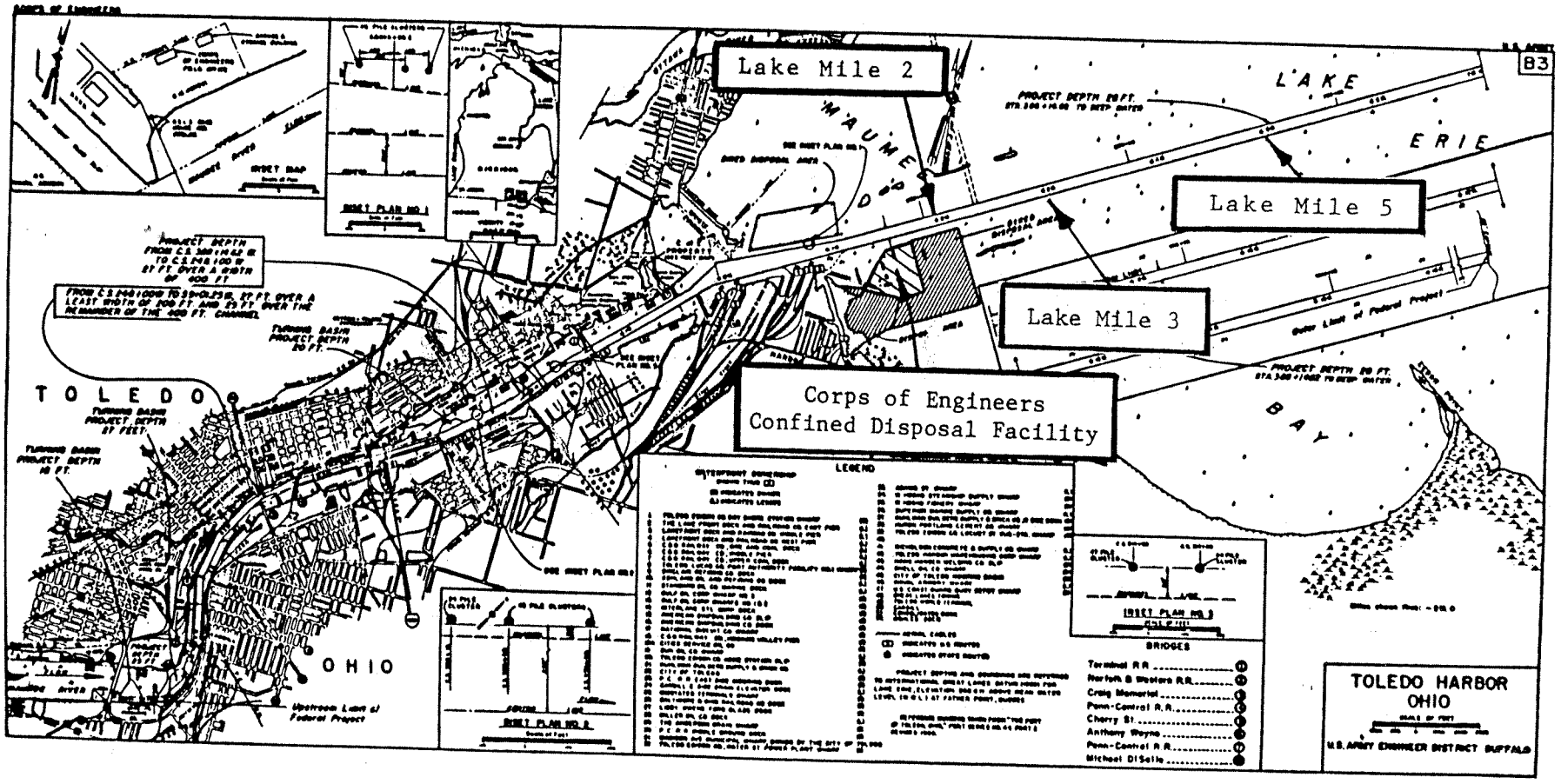
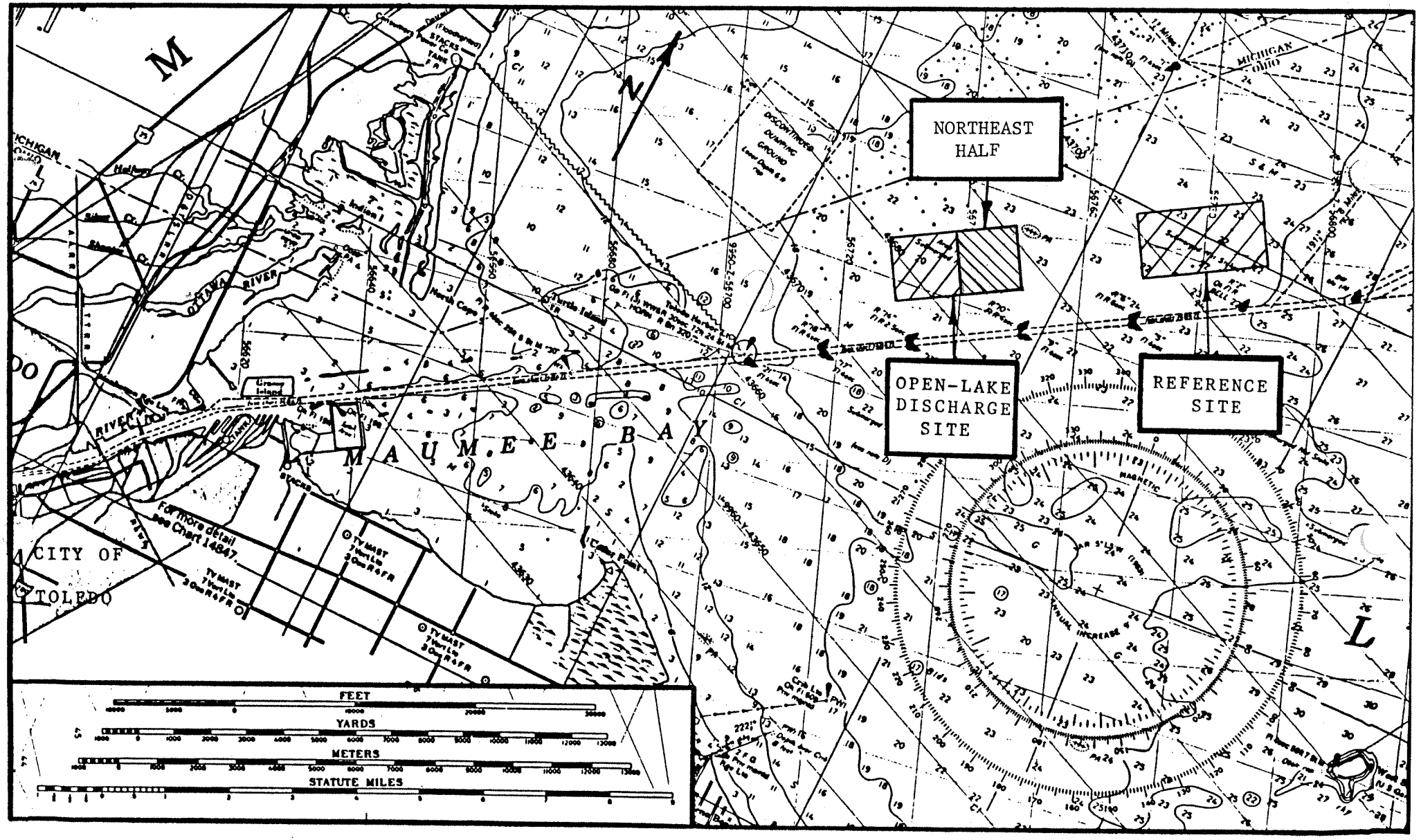


FIGURE 2. Toledo Harbor, Ohio, Open-lake Discharge Site (Reference Site is for Comparison Purposes).



Analytical Data for Polynuclear Aromatic Hydrocarbons in Elutriated Water in the Lake Channel

PAHS Elutriated	USACE	LM-0	LM-1	LM-2	LM-3	LM-4	LM-5	LM-6	LM-7	LM-8	LM-9
ANALYTE	Units										
Anthracene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Benzo(a)anthracene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Benzo(a)pyrene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Acenaphthene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Benzo(b)fluoranthene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Benzo(ghi)Perylene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Benzo(k)fluoranthene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Chrysene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Dibenzo(a,h)anthracene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Fluoranthene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Fluorene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Acenaphthylene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Indeno(1,2,3-cd)pyrene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Naphthalene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Phenanthrene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Pyrene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0

U = Analyte was not detected. The value represents the EPA Qualifier formula based on Method Detection Limit, dilution factor and % solids.
J = Analyte was detected but the value is an estimate within the range between the Reporting Limit (U) and zero.

Analytical Data for Polynuclear Aromatic Hydrocarbons in Elutriated Water in the Lake Channel

PAHS Elutriated	USACE	LM-10	LM-11	LM-12	LM-13	LM-14	LM-15	LM-16
ANALYTE	Units							
Anthracene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Benzo(a)anthracene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Benzo(a)pyrene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Acenaphthene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Benzo(b)fluoranthene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Benzo(ghi)Perylene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Benzo(k)fluoranthene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Chrysene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Dibenzo(a,h)anthracene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Fluoranthene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Fluorene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Acenaphthylene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Indeno(1,2,3-cd)pyrene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Naphthalene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Phenanthrene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0
Pyrene	ug/l	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0	U 2.0

U = Analyte was not detected. The value represents the EPA Qualifier formula based on Method Detection Limit, dilution factor and % solids.
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Analytical Data for Pesticides and Polychlorinated Bi-phenols in Elutriated Water in the Maumee River

PCBs/Pesticides Elutriated	USACE	RM-7	RM-6	RM-5	RM-4	RM-3	RM-2	RM-1
ANALYTE	Units							
Aldrin	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
alpha-BHC	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
4,4'-DDD	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
4,4'-DDE	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
4,4'-DDT	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Aroclor 1016	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1221	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1232	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1242	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1248	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1254	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1260	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
beta-BHC	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
Chlordane(Total)	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
delta-BHC	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
Dieldrin	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
Endosulfan I	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Endosulfan II	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Endosulfan sulfate	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Endrin	ug/l	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050
Endrin aldehyde	ug/l	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050
gamma-BHC (Lindane)	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
Heptachlor	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Heptachlor epoxide	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Methoxychlor	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Toxaphene	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10

U = Analyte was not detected. The value represents the EPA Qualifier formula based on Method Detection Limit, dilution factor and % solids.

J = Analyte was detected but the value is an estimate within the

Analytical Data for Pesticides and Polychlorinated Bi-phenols in Elutriated Water in the Lake Channel

PCBs/Pesticides Elutriated	USACE	LM-0	LM-1	LM-2	LM-3	LM-4	LM-5	LM-6	LM-7	LM-8	LM-9
ANALYTE	Units										
Aldrin	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
alpha-BHC	ug/l	U 0.020	U 0.020	U 0.020	U 0.030	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
4,4'-DDD	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
4,4'-DDE	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
4,4'-DDT	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Aroclor 1016	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1221	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1232	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1242	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1248	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1254	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1260	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
beta-BHC	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
Chlordane(Total)	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
delta-BHC	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
Dieldrin	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
Endosulfan I	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Endosulfan II	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Endosulfan sulfate	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Endrin	ug/l	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050
Endrin aldehyde	ug/l	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050
gamma-BHC (Lindane)	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
Heptachlor	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Heptachlor epoxide	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Methoxychlor	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Toxaphene	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10

U = Analyte was not detected. The value represents the EPA Qualifier formula based on Method Detection Limit, dilution factor and % solids.

J = Analyte was detected but the value is an estimate within the range between the Reporting Limit (U) and zero.

Analytical Data for Pesticides and Polychlorinated Bi-phenols in Elutriated Water in the Lake Channel

PCBs/Pesticides Elutriated	USACE	LM-10	LM-11	LM-12	LM-13	LM-14	LM-15	LM-16
ANALYTE	Units							
Aldrin	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
alpha-BHC	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
4,4'-DDD	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
4,4'-DDE	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
4,4'-DDT	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
Aroclor 1016	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1221	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1232	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1242	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1248	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1254	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
Aroclor 1260	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
beta-BHC	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
Chlordane(Total)	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10
delta-BHC	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
Dieldrin	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
Endosulfan I	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Endosulfan II	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Endosulfan sulfate	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Endrin	ug/l	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050
Endrin aldehyde	ug/l	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050	U 0.050
gamma-BHC (Lindane)	ug/l	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020	U 0.020
Heptachlor	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Heptachlor epoxide	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Methoxychlor	ug/l	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030	U 0.030
Toxaphene	ug/l	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10	U 0.10

U = Analyte was not detected. The value represents the EPA Qualifier formula based on Method Detection Limit, dilution factor and % solid

Analytical Data for Inorganic Material in Elutriated Water in the Maumee River

INORGANIC MATERIAL-ELUTRIATED WATER	USACE	RM-7	RM-6	RM-5	RM-4	RM-3	RM-2	RM-1
ANALYTE	Units							
COD, Low Level	mg/L	20.0	16.0	29.0	28.0	22.0	49.0	23.0
Cyanide, Total, CN	mg/L	U 0.0020	U 0.0020	U 0.0020	0.0040	U 0.0020	0.0040	0.0040
Nitrogen, Ammonia, N	mg/L	3.3	0.33	5.6	4.6	2.0	4.9	11.6
Nitrogen, Nitrate + Nitrite (as N)	mg/L	0.53	2.0	1.8	0.47	2.2	0.47	0.93
Nitrogen, Total Kjeldahl, TKN	mg/L	3.5	1.1	6.4	4.9	2.9	10.8	13.1
Oil/Grease	mg/L	U 1.0	U 2.0	U 1.0	U 1.0	U 1.0	U 1.0	U 1.0
Phosphorus, P	mg/L	0.13	0.20	0.17	0.40	0.27	1.9	0.41

U = Analyte was not detected. The value represents the EPA Qualifier formula based on Method Detection Limit, dilution factor and % solids.
J = Analyte was detected but the value is an estimate within the range between the Reporting Limit (U) and zero.

Analytical Data for Inorganic Material in Elutriated Water in the Lake Channel

INORGANIC MATERIAL-ELUTRIATED WATER	USACE	LM-0	LM-1	LM-2	LM-3	LM-4	LM-5	LM-6	LM-7	LM-8	LM-9
ANALYTE	Units										
COD, Low Level	mg/L	28.0	15.0	20.0	15.0	18.0	34.0	25.0	22.0	25.0	9.0
Cyanide, Total, CN	mg/L	U 0.0020	0.0030	U 0.0020	U 0.0020	U 0.0020	U 0.0020	U 0.0020	U 0.0020	U 0.0020	U 0.0020
Nitrogen, Ammonia, N	mg/L	4.4	4.5	4.7	3.7	1.7	3.7	3.9	2.5	1.1	0.30
Nitrogen, Nitrate + Nitrite (as N)	mg/L	1.6	0.84	1.1	0.040	3.0	0.020	0.12	0.41	1170	1.3
Nitrogen, Total Kjeldahl, TKN	mg/L	5.1	4.8	5.2	0.23	3.1	4.9	5.3	3.5	2.6	0.90
Oil/Grease	mg/L	U 1.0	U 1.0	U 1.0	3.0	U 1.0	U 1.0	U 2.0	U 1.0	U 1.0	U 1.0
Phosphorus, P	mg/L	0.19	0.12	0.16	0.26	0.31	0.55	0.32	0.4	0.63	0.11

INORGANIC MATERIAL-ELUTRIATED WATER	USACE	LM-10	LM-11	LM-12	LM-13	LM-14	LM-15	LM-16
ANALYTE	Units							
COD, Low Level	mg/L	9.0	7.0	12.0	U 1.0	U 1.0	7.0	12.0
Cyanide, Total, CN	mg/L	U 0.0020	U 0.030	0.0040	0.0030	0.0030	0.0030	U 0.0020
Nitrogen, Ammonia, N	mg/L	0.19	U 0.030	U 0.030	0.16	U 0.030	0.37	0.38
Nitrogen, Nitrate + Nitrite (as N)	mg/L	0.40	0.59	0.65	0.58	0.96	0.37	0.65
Nitrogen, Total Kjeldahl, TKN	mg/L	0.45	0.55	0.58	0.56	0.54	0.79	0.76
Oil/Grease	mg/L	U 1.0	U 1.0	U 1.0	U 1.0	U 1.0	U 1.0	U 1.0
Phosphorus, P	mg/L	0.10	0.10	0.090	0.060	0.050	0.030	0.070

U = Analyte was not detected. The value represents the EPA Qualifier formula based on Method Detection Limit, dilution factor and % solids.
J = Analyte was detected but the value is an estimate within the range between the Reporting Limit (U) and zero.